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John C. S. Koo

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EXAMINER

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/613,741  
Filing Date: July 03, 2003  
Appellant(s): KOO, JOHN C. S.

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Joseph G. Swan  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 02/18/2008 appealing from the Office action mailed 09/27/2007.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

No amendment after final has been filed.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

2,793,136	ROOT	5-1957
4,779,360	BIBLE	10-1988
5,276,981	SCHAFFER ET AL.	1-1994

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-8, 10-20 and 24-36 are finally rejected under 35 U.S.C. 103(a) as being unpatentable over Shin 4,658,514 in view of Root 2,793,136. Shin '514 teaches a shoe comprising a bottom surface that is adjacent to the ground in normal use and that the sole of a shoe has a plurality of protrusions 76 and a plurality of indentations (slots 50, see col. 3, lines 10-23) with only the protrusions having ridges 78 applied thereto to aid in affording traction to the user. Shin '514 further teaches that the indentations (slots 50) are provided to act as hinges and allow bending of the sole. Shin '514 shows these indentations without any traction elements because this section does not touch the ground and the traction elements would prevent complete bending of the sole in these areas. Shin '514 does not appear to disclose having a plurality of small particles bonded to at least the lower portions of the protrusions. Root '136 discloses that it is desirable to bond a plurality of small articles to the bottom of shoe in place of ridges to provide better slip-resistant surface. Therefore, it would have been obvious, to one of ordinary skill in the art at the time the invention was made, to replace the ridges on the lower extending portions of the protrusions of Shin '514 with the adhesively bonding small particles as taught by Root '136 to provide better slip-resistant surface. "A combination of familiar elements according to known methods is likely to be obvious

when it does no more than yield predictable results." "When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability."

Shin '514 as modified by Root '136 will have at least 1,000 small particles bonded to the at least some lower extending portions (see column 5, lines 34-58 of Root '136); the small particles are bonded to the at least some of the lower extending portions using adhesive material; the small particles comprises a fabric material (see column 4, lines 49-51 of Root '136); the small particles have been bonded directly onto the at least some of the lower extending portions; the sole is sufficiently durable for commercially acceptable outdoor use (see col. 2, lines 20-31); the sole includes an outsole that is comprised of solid rubber or other wear-resistant material; the small particles cover at least 50% of the portion of the bottom surface that normally comes into contact with the ground (see Figure 3A of Shin ' 514 where the ridges are replaced with plurality of small particle bonded there on); the sole is sufficiently strong for commercially acceptable outdoor use (see col. 2, lines 59-61 of Shin '514); the bottom surface has at least five indentations (see Figures 1 and 3A of Shin '514); at least some of the indentations are very narrow (see Figure 2 of Shin '514); at least one of the indentations appears to be approximately 1-2 millimeters in width (see indentations in forefoot area); at least some of the indentations are closely spaced (see First two indentations at front part of the toe area in Figure 2 of shin '514); at least two of the indentations appear to be separated from each other by no more than approximately 2

millimeters. Furthermore, it would have been an obvious matter of design choice to modify the size of the indentations, since such a modification would have involved a mere change in the size of a component. "[I]f a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond that person's skill." A change in form or shape is generally recognized as being within the level of ordinary skill in the art, absent any showing of unexpected results. *In re Dailey et al.*, 149 USPQ 47.

With respect to claims 4 and 32 and embedding small particles by using at least one of heat and pressure, Root '136 discloses embedding the small particles directly into said bottom surface using heat (see column 5, lines 50-58).

With respect to claims 4, 6, 32 and 35 and embedding the small particles using at least one of heat and pressure and/or by using flocking technique, the determination of patentability in a product-by-process claim is based on the product itself, even though the claim may be limited and defined by the process. That is, the product in such a claim is unpatentable if it is the same as or obvious from the product of the prior art, even if the prior product was made by a different process. *In re Thorpe*, 777 F.2d 695, 697, 227 USPQ 964, 966 (Fed. Cir. 1985). A product-by-process limitation adds no patentable distinction to the claim, and is unpatentable if the claimed product is the same as a product of the prior art.

With respect to claims 8 and 10 and the small particles comprising at least one of natural and synthetic rubber and/or plastic, see column 5, lines 8-10 of Root '136.

The references as applied to claim 1 above disclose all the limitations of the claims except for the for the particle material being made of natural or synthetic leather, natural or synthetic rubber, plastic, Root '156 discloses that a variety of particles can be used for forming the slip resistant surfaces. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to make the particles of the references as applied to claim 1 out of natural or synthetic leather, natural or synthetic rubber, or plastic as these materials are well known and used in the art for aiding in slip prevention.

With respect to claims 13-18, it appears that the ASTM tear resistance and abrasion resistance requirements are standards, therefore, it would be well within the skill of one of ordinary skill in the art to make a sole to meet these requirements. Therefore, it would have been obvious, to one of ordinary skill in the art at the time the invention was made, to make the sole of the references as applied to claim 1 above meet the tear and abrasion resistance standards.

Claim 9 is finally rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to claim 1 above and further in view of Bible 4,779,360. Shin-Root as modified above discloses all the limitations of the claim except for the particles comprising metal. Bible '360 teaches that grit material used to gain grip on slippery surfaces can be made of aluminum oxide, silicon carbide or tungsten carbide (i.e. metals) for their durability, less tendency to crumble and their hardness to scratch or furrow up metallic slippery surfaces. Therefore, it would have been obvious, to one of ordinary skill in the art at the time the invention was made, to make the grit particles of

Shin-Root as applied to claim 1 above out of metal, as taught by Bible '360, to aid in gaining grip on metallic or rough surfaces.

Claims 21-23 are finally rejected under 35 U.S.C. 103(a) as being unpatentable over the above references as applied to claim 1 and further in view Schaffer et al. 5,276,981. Shin-Root as modified above discloses all the limitations of the claims except for the particle wearing off over certain time frames. Schaffer et al. '981 teaches that the material for particles attached to the bottom of shoe soles to aid in gaining traction can be modified to wear over given time frames, including weeks (see col. 2, lines 3-21). Therefore, it would have been well within the skill of one of ordinary skill in the art, to modify the material of the particles attached to the sole of Shin-Root as applied to claim 1 above to last over any time period desired, as taught by Schaffer et al. '981, to determine the wear life of the sole of the shoe.

#### **(10) Response to Argument**

Appellant's arguments filed 02/18/2008 have been fully considered but they are not persuasive. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).



"[I]f a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond that person's skill." A change in form or shape is generally recognized as being within the level of ordinary skill in the art, absent any showing of unexpected results. *In re Dailey et al.*, 149 USPQ 47.

- 1) In response to Appellant's argument that Shin does not say anything at all about bonding a plurality of small particles to any portion of the bottom surface of a shoe in any manner whatsoever, and that Roots construction presumably provides traction when the protruding hard granules dig into a relatively soft surface which is different with Shin's construction for traction on a wet surface and that Root's structure would have not been an obvious replacement for Shin's, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). The claim would have been obvious because the substitution of one known element for another would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

**2) (11) Related Proceeding(s) Appendix**

Art Unit: 3728

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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